

Percentage Composition/ Empirical and Molecular Formula Worksheet

*Give the % composition of all elements in these compounds. **Show all work!***

- 1) ammonium sulfite
- 2) aluminum acetate
- 3) calcium oxalate
- 4) aluminum bromate
- 5) sodium hypoiodite

Solve the following problems on empirical and molecular formulas.

- 1) What's the empirical formula of a molecule containing 65.5% carbon, 5.5% hydrogen, and 29.0% oxygen?

- 2) If the molar mass of the compound in problem 1 is 120 grams/mole, what's the molecular formula?

- 3) What's the name of a the compound containing 18.7% lithium, 16.3% carbon, and 65.0% oxygen?

- 4) Menthol, the substance we can smell in mentholated cough drops, is composed of C, H, and O. A 0.1005 g sample is combusted, producing a 0.2829 g of carbon dioxide and 0.1159 g of water. What is the empirical formula for menthol? What is the molecular formula if its molar mass is 156 g/mol?